

Appl. No. 10/785,533

Amendment dated March 1, 2005

Reply to Office Action mailed December 30, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

- 1 1. (Original) An add-on circuit card retention apparatus
- 2 comprising:
- 3 an add-on circuit card having a face generally defining a
- 4 reference plane, said add-on circuit card having a first connector;
- 5 a second circuit card having a second connector for mating
- 6 with said first connector to provide electrical contact between said
- 7 add-on circuit card and said second circuit card;
- 8 a clip assembly for releasably securing said add-on circuit
- 9 card to said second circuit card, said clip assembly comprising:
- 10 a first catch member located on said add-on circuit card
- 11 and extending towards said second connector, said first catch
- 12 member having a first catch surface, said first catch surface
- 13 generally lying in a plane forming a first catch member angle
- 14 with respect to said reference plane of less than 90 degrees;
- 15 and
- 16 a second catch member being located on said second
- 17 connector and extending along said second connector, said
- 18 second catch member having a second catch surface extending
- 19 away from said second connector, said second catch surface
- 20 generally lying in a plane forming a second catch member
- 21 angle with respect to said reference plane of less than 90
- 22 degrees when said first connector of said add-on circuit card
- 23 is in a mated condition with said second connector.

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1 2. (Original) An add-on circuit card retention apparatus according
2 to claim 1, wherein said clip assembly further includes a first member
3 extending from said add-on circuit card and a second member extending
4 from said first member to a position near said second connector when
5 said first connector of said add-on circuit card is mated with said second
6 connector of said second circuit card, said first catch member being
7 mounted on said second member.

1 3. (Original) An add-on circuit card retention apparatus according
2 to claim 1, wherein said first catch member angle measures between 89
3 degrees and 70 degrees.

1 4. (Original) An add-on circuit card retention apparatus according
2 to claim 1, wherein said second catch member angle measures between 89
3 degrees and 70 degrees.

1 5. (Original) An add-on circuit card retention apparatus
2 according to claim 1, wherein said first catch member angle is
3 substantially equal to said second catch member angle.

1 6. (Original) An add-on circuit card retention apparatus according
2 to claim 1, wherein said second connector has a side, and said second
3 catch member is located on said side of said second connector.

1 7. (Original) An add-on circuit card retention apparatus according
2 to claim 1, wherein said clip assembly is substantially rigid.

1 8. (Original) An add-on circuit card retention apparatus
2 according to claim 1, wherein said second circuit card is a personal
3 computer motherboard.

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1 9. (Original) An add-on circuit card retention apparatus
2 according to claim 1, wherein said first connector is a printed
3 circuit card edge connector and said second connector conforms to
4 the Personal Computer Interconnect (PCI) standard.

1 10. (Original) An add-on circuit card retention apparatus
2 according to claim 1, wherein said first connector is a printed
3 circuit card edge connector and said second connector conforms to
4 the Industry Standard Adapter (ISA) standard.

1 11. (Original) An add-on circuit card retention apparatus
2 according to claim 1, wherein said first connector is a printed
3 circuit card edge connector and said second connector conforms to
4 the next generation interconnect standard known as 3GIO.

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1 12. (Original) A method for securing an add-on circuit card
2 with a first connector in a mated relationship with a second
3 connector, said add-on circuit card having a clip assembly, said clip
4 assembly including a first catch member with a first catch surface
5 thereon mounted on said add-on circuit card and a second catch
6 member with a second catch surface formed thereon on said second
7 connector, said first catch surface being oriented at an acute angle
8 with respect to a face of said add-on circuit card and said second
9 catch surface being oriented at an acute angle with respect to said
10 face of said add-on circuit card when said connectors are in a mated
11 condition, comprising:
12 inserting said first connector of said add-on circuit card into
13 said second connector;
14 seating said first connector of said add-on circuit card fully
15 into said second connector;
16 exerting pressure on said clip assembly such that said first
17 catch member of said clip assembly extends just past said second
18 catch member of said second connector;
19 maneuvering said first catch surface of said first catch
20 member so that said first catch surface aligns with said second catch
21 surface of said second catch member of said second connector; and
22 releasing pressure on said clip assembly such that said first
23 catch surface of said first catch member on said first connector
24 contacts said second catch surface of said second catch member on
25 said second connector to thereby retain said first connector in said
26 second connector.

1 13. (Original) A method according to claim 12, wherein said
2 second connector is mounted on a second circuit board, and said
3 second circuit board comprises a personal computer motherboard.

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1 14. (Original) A method according to claim 12, wherein said
2 first connector is a printed circuit card edge connector and said
3 second connector conforms to the Personal Computer Interconnect
4 (PCI) standard.

1 15. (Original) A method according to claim 12, wherein said
2 first connector is a printed circuit card edge connector and said
3 second connector conforms to the Industry Standard Adapter (ISA)
4 standard.

1 16. (Original) A method according to claim 12, wherein said
2 first connector is a printed circuit card edge connector and said
3 second connector conforms to the next generation interconnect
4 standard known as 3GIO.

1 17. (Original) A method according to claim 12, whereas said
2 clip assembly is fastened to said add-on circuit card by an adhesive.

1 18. (Original) A method according to claim 12, whereas said
2 clip assembly is fastened to said add-on circuit card by welding.

1 19. (Original) A method according to claim 12, whereas said
2 clip assembly is fastened to said add-on circuit card by a fastener.

1 20. (Original) A method according to claim 12, wherein said
2 first catch surface has substantially the same angle as said second
3 catch surface.

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1 21. (New) An add-on circuit card retention apparatus
2 according to claim 1, wherein said second catch member angle is
3 slightly less than said first catch member angle.

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1 22. (New) An add-on circuit card retention apparatus according to
2 claim 1, wherein said first catch member extends outwardly from the face
3 of said add-on circuit card, and wherein said second connector has a side
4 corresponding to the face of said add-on circuit card when said first
5 connector of said add-on circuit card is mated with said second connector
6 of said second circuit card, said second catch member being located on
7 said side of said second connector.

1 23. (New) An add-on circuit card retention apparatus according to
2 claim 1, wherein said clip assembly further includes a first member
3 extending from said add-on circuit card and a second member extending
4 from said first member to a position near said second connector when
5 said first connector of said add-on circuit card is mated with said second
6 connector of said second circuit card, said first catch member being
7 mounted on said second member in a manner such that said first member
8 forms a fulcrum for said second member and such that application of
9 force to a portion of said second member tends to move said first catch
10 member out of engagement with said second catch member when said first
11 connector of said add-on circuit card is mated with said second connector
12 of said second circuit card.